Subject Index

Accuracy Assessments
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Quantitation Limits for Reference Methods 23, 26, and 29, 399

Acid Deposition
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Acid Precipitation
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655

Active Compost
Thermophilic Toluene Biofiltration, 350

Aeration Units
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Aerosols
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Contribution of Nitrate and Carbonaceous Species to $PM_{2.5}$ Observed in Canadian Cities, 193
Seasonal Transport of Fine Particles to the Grand Canyon, 268
Comparative Study of Spray Booth Filter System Efficiency, 339
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201
Particle Air Pollution in Mexico City: A Collaborative Research Project, 1221
Effects of Equilibration Temperature on PM_{10} Concentrations from the TEOM Method in the Lower Fraser Valley, 1250
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1415
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1449

Aggregation
Formation of an Air Pollution Index, 88

Agriculture
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Air Bags
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Air Emissions
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Air Quality Modeling
PM Fine Standards and Implied Modeling/Analysis Needs, PM-116
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Air Pollutants
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Air Pollution
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Characterization of Curing Emissions from Conversion Varnishes, 70
Formation of Air Pollution Index, 88
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154
Cleaning of Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169
A High Performance Biofilter for VOC Emission Control, 185
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
The Catalytic Purification of CO-Rich Air, 308
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Comparative Study of Spray Booth Filter System Efficiency, 339

Subject Index

Accuracy Assessments
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Quantitation Limits for Reference Methods 23, 26, and 29, 399

Acid Deposition
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Acid Precipitation
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655

Active Compost
Thermophilic Toluene Biofiltration, 350

Aeration Units
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Aerosols
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Contribution of Nitrate and Carbonaceous Species to $PM_{2.5}$ Observed in Canadian Cities, 193
Seasonal Transport of Fine Particles to the Grand Canyon, 268
Comparative Study of Spray Booth Filter System Efficiency, 339
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201
Particle Air Pollution in Mexico City: A Collaborative Research Project, 1221
Effects of Equilibration Temperature on PM_{10} Concentrations from the TEOM Method in the Lower Fraser Valley, 1250
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1415
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1449

Aggregation
Formation of an Air Pollution Index, 88

Agriculture
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Air Bags
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Air Emissions
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Air Quality Modeling
PM Fine Standards and Implied Modeling/Analysis Needs, PM-116
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Air Pollutants
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Air Pollution
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Characterization of Curing Emissions from Conversion Varnishes, 70
Formation of Air Pollution Index, 88
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154
Cleaning of Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169
A High Performance Biofilter for VOC Emission Control, 185
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
The Catalytic Purification of CO-Rich Air, 308
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Comparative Study of Spray Booth Filter System Efficiency, 339

Phantom Spatial Factors: An Example, 345
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562
Human Breath Emissions of VOCs, 594
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075
National Estimates of Outdoor Air Toxics Concentrations, 1138
An Empirical Model to Predict Styrene Emissions from Fiber-Reinforced Plastics Fabrication Processes, 1168
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212
Particle Air Pollution in Mexico City: A Collaborative Research Project, 1221
The Influence of Gasoline Formulation on Specific Pollutant Emissions,1304
Enhanced VOC Absorption Using the Ozone/Hydrogen Peroxide Advanced Oxidation Process, 1315
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374
Assessment of Human Exposure to Ambient Particulate Matter, 1280
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Air Pollution Control
Treatment of Toluene in an Air Stream by a Biotrickling Filter Packed with Slags, 386
Treatment of Ethylether in Air Stream by a Biotrickling Filter Packed with Slags, 533

Air Pollution Index
Formation of an Air Pollution Index, 88

Air Pollution Standards
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Quantitation Limits for Reference Methods 23, 26, and 29, 399

Air Quality
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Formation of an Air Pollution Index, 88
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Contribution of Nitrate and Carbonaceous Species to $PM_{2.5}$ Observed in Canadian Cities, 193
Objectives and Design of Central California's 1995 Integrated Monitoring Study of the California Regional $PM_{10}/PM_{2.5}$ Air Quality Study, PM-199
Phantom Spatial Factors: An Example, 345
Bioaerosol Concentration at an Outdoor Composting Center, 554
Human Breath Emissions of VOCs, 594
National Estimates of Outdoor Air Toxics Concentrations, 1138
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179
Particle Air Pollution in Mexico City: A Collaborative Research Project, 1221
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Air Quality Standards
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Overshoot Bias and the National Ozone Standard, 370
Use of the Deciview Haze Index as an Indicator for Regional Haze, 1230
Effects of Equilibration Temperature on PM_{10} Concentration from the TEOM Method in the Lower Fraser Valley, 1250
Assessment of Human Exposure to Ambient Particulate Matter, 1280
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Air Quality Studies
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100
Seasonal Transport of Fine Particles to the Grand Canyon, 268
Tracking Regional Background in a Haze Attribution Experiment, 599
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Air Quality Trends Report
Characteristics of Urban Ground-Level Ozone in Korea, 1415

Air Toxics
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Characterization of Curing Emissions from Conversion Varnishes, 70
Formation of Air Pollution Index, 88
The Catalytic Purification of CO-Rich Air, 308
Modeling Mercury Removal by Sorbent Injection, 694
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
National Estimates of Outdoor Air Toxics Concentrations, 1138
An Empirical Model to Predict Styrene Emissions from Fiber-Reinforced Plastics Fabrication Processes, 1168
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

α-pinene
Transient Performance of Biofilters Treating Mixtures of Hydrophilic and Hydrophobic Volatile Organic Compounds, 1434

Alternative
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

Alternative/Innovative Technologies
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Ambient Air
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201
Effects of Equilibration Temperature on PM_{10} Concentrations from the TEOM Method in the Lower Fraser Valley, 1250
Assessment of Human Exposure to Ambient Particulate Matter, 1280
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Ambient Air Quality Standards
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Day-to-Day Particulate Exposure and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060
Assessment of Human Exposure to Ambient Particulate Matter, 1280
Characteristics of Urban Ground-Level Ozone in Korea, 1415
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1425

Ambient Concentrations
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Contribution of Nitrate and Carbonaceous Species to $PM_{2.5}$ Observed in Canadian Cities, 193
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
The Catalytic Purification of CO-Rich Air, 308
Phantom Spatial Factors: An Example, 345
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424
Middle-and Neighborhood-Scale Variation of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669
Maximizing Data Quality in the Gravimetric Analysis of Personal Exposure Sample Filters, 1039
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060
National Estimates of Outdoor Air Toxics Concentrations, 1138
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212
Particle Air Pollution in Mexico City: A Collaborative Research Project, 1221
Effects of Equilibration Temperature on PM_{10} Concentrations from the TEOM Method in the Lower Fraser Valley, 1250
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266
Assessment of Human Exposure to Ambient Particulate Matter, 1280

Ambient Methods
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastics, 1110

Ambient Tropospheric Ozone
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Ambiguity
Formation of an Air Pollution Index, 88

Analytical Methods
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Characterization of Curing Emissions from Conversion Varnishes, 70
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
A Statistical Model for FEV_1 Response to Arbitrary Dynamic Ozone Exposure Conditions, 289
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454
Vapor Pressure Measurement System for Heavy Crude Oils, 1103
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastics, 1110
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245
Effects of Equilibration Temperature on PM_{10} Concentrations from the TEOM Method in the Lower Fraser Valley, 1250

Applications
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Area Sources
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Ash, Bottom
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444

Ash, Fly
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444

Attainment Demonstrations
PM Fine Standards and Implied Modeling/Analysis Needs, PM-116

Atmospheric Chemistry
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177
Human Breath Emissions of VOCs, 594
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734
Particle Air Pollution in Mexico City: A Collaborative Research Project, 1221
The Plume Volume Molar Ratio Method for Determining NO_2/NO_x Ratios in Modeling—Part I: Methodology; Part II: Evaluation Studies, 1324 and 1332
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

Australia
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76

Automotive Exhaust
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57
PM Emissions Emanating from Limited-Access Highways, PM-85
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304
Development of a High-Speed Ultraviolet Spectrometer for Remote Sensing of Mobile Source Nitric Oxide Emissions, 1463

Azide
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Back Trajectories
Seasonal Transport of Fine Particles to the Grand Canyon, 268

Bag House
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Batch Biofiltration
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068

Beta Attenuation Monitor (BAM)
Characterization of Particulate Matter in California, PM-45

Bioaerosols
Bioaerosol Concentration at an Outdoor Composting Center, 554

Biofiltration
A High Performance Biofilter for VOC Emission Control, 185
Thermophilic Toluene Biofiltration, 350
Transient Performance of Biofilters Treating Mixtures of Hydrophilic and Hydrophobic Volatile Organic Compounds, 1434

Biotrickling Filter
Treatment of Toluene in an Air Stream by a Biotrickling Filter Packed with Slags, 386
Treatment of Ethylether in Air Stream by a Biotrickling Filter Packed with Slags, 533

Bioventing
Radio Frequency Heating for Soil Remediation, 136
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544

Blood Pressure
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Bromomethane
Nonthermal Plasma Chemical Processing of Bromomethane, 1443

BTEX
Thermophilic Toluene Biofiltration, 350

Calculation Methods
Phantom Spatial Factors: An Example, 345
Modeling Mercury Removal by Sorbent Injection, 694
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

California Acid Deposition Monitoring Network (CADMP)
Characterization of Particulate Matter in California, PM-45

Canister Sampling
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64

Carbon Dioxide
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463

Carbon Monoxide
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125
The Catalytic Purification of CO-Rich Air, 308
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463

Catalytic Conversion
The Catalytic Purification of CO-Rich Air, 308
Selection and Substantiation of an Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324

Cellar Ventilation
Multiple Radon Entry Modeling in a House with a Cellar, 682

Cement Kilns
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Chain-Driven
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operations, PM-95

Characterization
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Charbroiler
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operations, PM-95

Chemical Mass Balance Model
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498

Children
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Chile
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Chlorofluorocarbons
Tracking Regional Background in a Haze Attribution Experiment, 599
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734

Chronic Obstructive Pulmonary Disease
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Clean Air Act Amendments
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

CMB Model
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1449

Coal-Burning Facilities
Modeling Mercury Removal by Sorbent Injection, 694
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Coarse Mass
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133

Coarse Particles
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182

Coke Oven
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Cold Start
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125

Combined Sewer Systems
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454

Combustion
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
Estimating the Lower Heating Values of Hazardous and Solid Wastes, 471
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Computational Fluid Dynamics (CFD) Modeling
Multiple Radon Entry Modeling in a House with a Cellar, 682

Composition
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096

Composting
Bioaerosol Concentration at an Outdoor Composting Center, 554

Compound Interactions
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16

Condensation
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64

Contaminated Soil
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Continuous Emission Monitoring
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424

Control Strategies
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562

Control Technologies
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
A High Performance Biofilter for VOC Emission Control, 185
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Comparative Study of Spray Booth Filter System Efficiency, 339
Modeling Mercury Removal by Sorbent Injection, 694
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116

Convective Pass Sorbent Injection
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $CA(OH)_2$ Injection for SO_2 Removal, 1292

Corrosion Inhibitors
Environmental Beneficiation of Machining Wastes—Part III: Effects of Metal Working Fluids on the Spontaneous Heating of Machining Swarf, 588

Cost Estimation
Polyfunctional Plants for Industrial Waste Disposal— Part II: Economics and Model Evaluation, 1362

Data Collection
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454

Data Quality
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Decision-Making
Formation of an Air Pollution Index, 88
Phantom Spatial Factors: An Example, 345
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Deciview
Use of the Deciview Haze Index as an Indicator for Regional Haze, 1230

Denuders
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69

Design
Cost-Effectiveness Analysis of Waste Gas Treatment Plants for the Glass Industry, 1456

Destruction and Removal Efficiencies
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Diagnostics
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1449

Dichotomous
Characterization of Particulate Matter in California, PM-45

Dichotomous Sampler
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133

Diesel
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76

Dispersion
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57

Dispersion Models
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
PM Emissions Emanating from Limited-Access Highways, PM-85
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655
The Plume Volume Molar Ratio Method for Determining NO_2/NO_x Ratios in Modeling—Part I: Methodology; Part II: Evaluation Studies, 1324 and 1332

Disturbance Pressure
Multiple Radon Entry Modeling in a House with a Cellar, 682

Diurnal and Seasonal Variation
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Dry Deposition
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57

Dry-Cleaning
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Dust, Fugitive
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
PM Emissions Emanating from Limited-Access Highways, PM-85
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Middle- and Neighborhood-Scale Variation of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Development, Evaluation, and Application of a Primary Aerosol Model, 57

Eclipsicity
Formation of an Air Pollution Index, 88

Ecological Balance
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Economics
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368
Cost-Effectiveness Analysis of Waste Gas Treatment Plants for the Glass Industry, 1456

Economic Analysis
Polyfunctional Plants for Industrial Waste Disposal— Part II: Economics and Model Evaluation, 1362

Economizer $CA(OH)_2$ Injection
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Electric Utilities
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562
Modeling Mercury Removal by Sorbent Injection, 694

Electrostatic Precipitation
Cleaning Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169

Emission Controls
Cleaning Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169
A High Performance Biofilter for VOC Emission Control, 185
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Emission Inventories
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655
An Integrated Modeling System for the Estimation of Motor Vehicle Emissions, 1010
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

Emission Rates
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Development of Emission Factors for Polypropylene Processing, 49
PM Emissions Emanating from Limited-Access Highways, PM-85
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164
Metal Emissions from Joule-Heated Vitrification Systems, 219
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412

Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562
Human Breath Emissions of VOCs, 594
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

Emission Standards
Development of Emission Factors for Polypropylene Processing, 49
Cleaning Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169

Emissions
Development of Emission Factors for Polypropylene Processing, 49
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76
Development of a $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin, PM-125
A High Performance Biofilter for VOC Emission Control, 185
Comparative Study of Spray Booth Filter System Efficiency, 339
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520
Human Breath Emissions of Volatile Organic Compounds, 594
Middle- and Neighborhood-Scale Variation of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116
Exhaust Emissions from Gasoline-and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Emissions Characterization
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
Development of Emission Factors for Polypropylene Processing, 49
Characterization of Curing Emissions from Conversion Varnishes, 70
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156
Metal Emissions from Joule-Heated Vitrification Systems, 219
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Quantitation Limits for Reference Methods 23, 26, and 29, 399
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Emissions Modeling
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Emissions Reduction
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1415
Nonthermal Plasma Chemical Processing of Bromomethane, 1442

Emissions Trading
A High Performance Biofilter for VOC Emission Control, 185

Emissions, Automotive
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in South Coast Air Quality Management District, 28
PM Emissions Emanating from Limited-Access Highways, PM-85
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463
An Integrated Modeling System for the Estimation of Motor Vehicle Emissions, 1010
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

Emissions, Carbon Monoxide
The Catalytic Purification of CO-Rich Air, 308

Emissions, Fugitive
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions From Unpaved Roads, 3
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Emissions, Hydrocarbon
Development of Emission Factors for Polypropylene Processing, 49
Vapor Pressure Measurement System for Heavy Crude Oils, 1103

Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastic, 1110
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Emissions, Landfill Gas
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520

Emissions, Natural
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
Human Breath Emissions of VOCs, 594

Environmental Management
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Epidemiology
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454
Assessment of Human Exposure to Ambient Particulate Matter, 1280

Ethylether
Treatment of Ethylether in Air Stream by a Biotrickling Filter Packed with Slags, 533

Evaluation Modeling
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Evaporative Losses
Determination of Source Contributions to Ambient Volatile Organic Compound Concentrations in Berlin, 1394

Exhaust
Determination of Source Contributions to Ambient Volatile Organic Compound Concentrations in Berlin, 1394

Exposure Assessments
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133

Exposure Modeling
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192

Exposure Parameters
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area residents with Severe Lung Disease, PM-108
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669
Assessment of Human Exposure to Ambient Particulate Matter, 1280

Extraction
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Fabric Filter
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Factor Analysis
Phantom Spatial Factors: An Example, 345

Fast Pass
Estimating Full IM240 Emissions from Partial Test Results: Evidence from Arizona, 1153

Fiber-Reinforced Plastics
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168

Filter Weighing
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Fine Particles
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182

Fireworks
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156

Flow-Through
A Flow-Through Leaching Model for Monolithic Chemically Stabilized/Solidified Hazardous Waste, 569

Flue Gases
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
Modeling Mercury Removal by Sorbent Injection, 694
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116

Flue Gas Desulfurization
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

FTIR
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Fuels
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Fuels, Alternative
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in South Coast Air Quality Management District, 28
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Fuels, Fossil
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562
Vapor Pressure Measurement System for Heavy Crude Oils, 1103

Fumigant(s)
Nonthermal Plasma Chemical Processing of Bromomethane, 1442

Gas Chromatography
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
Human Breath Emissions of VOCs, 594
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Gas Chromatography-Mass Spectrometry
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in South Coast Air Quality Management District, 28
Characterization of Curing Emissions from Conversion Varnishes, 70
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
Human Breath Emissions of VOCs, 594

Gasoline
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico, 1179

Geography
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3

Glass Industry
Cost-Effectiveness Analysis of Waste Gas Treatment Plants for the Glass Industry, 1457

Gradients
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Groundwater
Radio Frequency Heating for Soil Remediation, 136
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Halocarbons
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Harvard Impactor
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133

Hazardous Air Pollutants
Development of Emission Factors for Polypropylene Processing, 49
Characterization of Curing Emissions from Conversion Varnishes, 70
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
The Catalytic Purification of CO-Rich Air, 308
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316
Comparative Study of Spray Booth Filter System Efficiency, 339
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520
Modeling Mercury Removal by Sorbent Injection, 694
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastic, 1110
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
National Estimates of Outdoor Air Toxics Concentrations, 1138
Ozone Decay Rates in Residences, 1238
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Hazardous Waste
Estimating the Lower Heating Values of Hazardous and Solid Wastes, 471
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Hazardous Waste Cleanup
Radio Frequency Heating for Soil Remediation, 136
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Hazardous Waste Management
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17
Environmental Beneficiation of Machining Wastes— Part I: Material Characterization of Machining Swarf, 207
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Hazardous Waste Sites
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027

Haze
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Seasonal Transport of Fine Particles to the Grand Canyon, 268
Phantom Spatial Factors: An Example, 345
Tracking Regional Background in a Haze Attribution Experiment, 599
Particle Air Pollution in Mexico City: A Collaborative Research Project, 1221
Use of the Deciview Haze Index as an Indicator for Regional Haze, 1230

Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Health Effects/Risks
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192
A Statistical Model for FEV_1 Response to Arbitrary Dynamic Ozone Conditions, 289
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454
Human Breath Emissions of Volatile Organic Compounds, 594

Heating Profile
Environmental Beneficiation of Machining Wastes—Part II: Measurement of the Effects of Moisture on the Spontaneous Heating of Machining Swarf, 477
Environmental Beneficiation of Machining Wastes—Part III: Effects of Metal Working Fluids on the Spontaneous Heating of Machining Swarf, 588

High-Temperature
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Homogeneity
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

House with Cellar
Multiple Radon Entry Modeling in a House with a Cellar, 682

Human Exposure
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454
Human Breath Emissions of VOCs, 594
Maximizing Data Quality in the Gravimetric Analysis of Personal Exposure Sample Filters, 1039

Humidity
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Tracking Regional Background in a Haze Attribution Experiment, 599
Effects of Equilibration Temperature on PM_{10} Concentration from the TEOM Method in the Lower Fraser Valley, 1250

Hydrocarbon Emissions
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498

Hydrocarbons
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Radio Frequency Heating for Soil Remediation, 136
A High Performance Biofilter for VOC Emission Control, 185
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastic, 1110
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Hydrophilic
Transient Performance of Biofilters Treating Mixtures of Hydrophilic and Hydrophobic Volatile Organic Compounds, 1434

Hydrophobic
Transient Performance of Biofilters Treating Mixtures of Hydrophilic and Hydrophobic Volatile Organic Compounds, 1434

Incineration
Quantitation Limits for Reference Methods 23, 26, and 29, 399
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
Estimating the Lower Heating Values of Hazardous and Solid Waste, 471
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116

Incineration Emissions
Cleaning Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169

Individual Exposure
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Indoor Air Pollution
Characterization of Curing Emissions from Conversion Varnishes, 70
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212
Ozone Decay Rates in Residences, 1238

Industrial Pollution
A High Performance Biofilter for VOC Emission Control, 185
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Industrial Waste
Polyfunctional Plants for Industrial Waste Disposal—Part I: Process and Equipment Design; Part II: Economics and Model Evaluation, 1355 and 1362

Inertial Impactor
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133

Influential Species
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1450

Innovative Technologies
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114

Radio Frequency Heating for Soil Remediation, 136
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Inorganic Aerosol Chemistry
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1425

Inspection/Maintenance
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463
Estimating Full IM240 Emissions from Partial Test Results: Evidence from Arizona, 1153

Integrated Monitoring Study (IMS95)
Objectives and Design of Central California's 1995 Integrated Monitoring Study of the California Regional $PM_{10}/PM_{2.5}$ Air Quality Study, PM-199

Intensity
Development of the Relationship between Odor Intensity and Threshold Dilution Ratio for Swine Units, 1082

Inventory
Development of a $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin, PM-125

Irrigation
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Land Disposal
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Landfills
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027

Leaching
A Flow-Through Leaching Model for Monolithic Chemically Stabilized/Solidified Hazardous Waste, 569
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Leaking Underground Storage Tanks
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544

Lichens
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Life Cycle Cost Analysis
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17

Liner
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027

Long-Range Transport
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655

Lysimeter
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Machining Fluids
Environmental Beneficiation of Machining Wastes—Part III: Effects of Metal Working Fluids on the Spontaneous Heating of Machining Swarf, 588

Machining Swarf
Environmental Beneficiation of Machining Wastes—Part II: Measurement of the Effects of Moisture on the Spontaneous Heating of Machining Swarf, 477
Environmental Beneficiation of Machining Wastes—Part III: Effects of Metal Working Fluids on the Spontaneous Heating of Machining Swarf, 588

Materials Separation
Analysis of Material Recovery in Plasma Arc Melting of Solid Wastes: A Computational Study, 279

Measurement Error
The Magnitude of Bias in the Measurement of $PM_{2.5}$ Arising from Volatilization of Particulate Nitrate from Teflon Filters, 725

Measurement Precision
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133

Measurement Techniques
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
Estimating Maximum Concentrations for Open Path Monitoring Along a Fixed Beam Path, 424
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454
Beyond Detectability, 582
A Review of 20 Years of Standardization of Odor Concentration Measurement by Dynamic Olfactometry in Europe, 705
Vapor Pressure Measurement System for Heavy Crude Oils, 1103
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastic, 1110
Effects of Equilibration Temperature on PM_{10} Concentration from the TEOM Method in the Lower Fraser Valley, 1250

Mercury
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520
Modeling Mercury Removal by Sorbent Injection, 694

Meteorological Conditions
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16

Meteorological Modeling
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Methanol
Transient Performance of Biofilters Treating Mixtures of Hydrophilic and Hydrophobic Volatile Organic Compounds, 1434

Methylchloroform
Tracking Regional Background in a Haze Attribution Experiment, 599

Mixed Wastes
Metal Emissions from Joule-Heated Vitrification Systems, 219

Mobile Sources
PM Emissions Emanating from Limited-Access Highways, PM-85

Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164
Development, Evaluation, and Application of a Primary Aerosol Model, 57
Estimating Full IM240 Emissions from Partial Test Results: Evidence from Arizona, 1153
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339
Development of a High-Speed Ultraviolet Spectrometer for Remote Sensing of Mobile Source Nitric Oxide Emissions, 1463

Model
A Flow-Through Leaching Model for Monolithic Chemically Stabilized/Solidified Hazardous Waste, 569

Modeling
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Analysis of Material Recovery in Plasma ARC Melting of Solid Wastes: A Computational Study, 279
A Statistical Model for FEV_1 Response to Arbitrary Dynamic Ozone Conditions, 289
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316
Phantom Spatial Factors: An Example, 345
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655
Modeling Mercury Removal by Sorbent Injection, 694
A Integrated Modeling System for the Estimation of Motor Vehicle Emission, 1010
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050
Development of the Relationship between Odor Intensity and Threshold Dilution Ratio for Swine Units, 1082
National Estimates of Outdoor Air Toxics Concentrations, 1138
The Plume Volume Molar Ratio Method for Determining NO_2/NO_x Ratios in Modeling—Part I: Methodology; Part II: Evaluation Studies, 1324 and 1332
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1449

Moisture Content
Environmental Beneficiation of Machining Wastes—Part II: Measurement of the Effects of Moisture on the Spontaneous Heating of Machining Swarf, 477

Monitoring
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177
Estimating Maximum Concentrations for Open Path Monitoring Along a Fixed Beam Path, 424
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434
Bioaerosol Concentration at an Outdoor Composting Center, 554
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060
The Plume Volume Molar Ratio Method for Determining NO_2/NO_x Ratios in Modeling—Part I: Methodology; Part II: Evaluation Studies, 1324 and 1332
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Mortality
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100

Motor Vehicles
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57
PM Emissions Emanating from Limited-Access Highways, PM-85
A Fuel-Based Approach to Estimating Motor Vehicle Cold Start Emissions, 125
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463
An Integrated Modeling System for the Estimation of Motor Vehicle Emissions, 1010
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

MPIN
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1449

Multiple Radon Entry
Multiple Radon Entry Modeling in a House with a Cellar, 682

Municipal Solid Waste
Estimating the Lower Heating Values of Hazardous and Solid Waste, 471
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096

NAAQS
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192
Overshoot Bias and the National Ozone Standard, 370
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669

Natural Gas
Determination of Source Contributions to Ambient Volatile Organic Compound Concentrations in Berlin, 1394

Nitrate
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
The Magnitude of Bias in the Measurement of $PM_{2.5}$ Arising from Volatilization of Particulate Nitrate from Teflon Filters, 725

Nitrate Artifacts
Nitrate Artifacts during $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin of California, PM-142

Nitrate Losses
Nitrate Artifacts during $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin of California, PM-142

Nitrogen Dioxide
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76
The Plume Volume Molar Ratio Method for Determining NO_2/NO_x Ratios in Modeling—Part I: Methodology; Part II: Evaluation Studies, 1324 and 1332

Nitrogen Oxides
A Fuel-Based Approach to Estimating Motor Vehicle Cold Start Emissions, 125
Cleaning of Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463
The Plume Volume Molar Ratio Method for Determining NO_2/NO_x Ratios in Modeling—Part I: Methodology; Part II: Evaluation Studies, 1324 and 1332
Development of a High-Speed Ultraviolet Spectrometer for Remote Sensing of Mobile Source Nitric Oxide Emissions, 1463

Non-Methane Hydrocarbons
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
Vapor Pressure Measurement System for Heavy Crude Oils, 1103
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastic, 1110
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Non-Methane Organic Gases
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in South Coast Air Quality Management District, 28
A Fuel-Based Approach to Estimating Motor Vehicle Cold Start Emissions, 125
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Nonthermal Plasma
Nonthermal Plasma Chemical Processing of Bromomethane, 1443

Nutrient Removal
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Odor Regulations
Beyond Detectability, 582

Odors
Selection and Substantiation of an Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Beyond Detectability, 582
A Review of 20 Years of Standardization of Odor Concentration Measurement by Dynamic Olfactometry in Europe, 705
Development of the Relationship between Odor Intensity and Threshold Dilution Ratio for Swine Units, 1082

Olfactometry
A Review of 20 Years of Standardization of Odor Concentration Measurement by Dynamic Olfactometry in Europe, 705

Opacity
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76

Open Molding
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256

Open Path
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Optimization
Cost-Effectiveness Analysis of Waste Gas Treatment Plants for the Glass Industry, 1456

Overshoot Bias
Overshoot Bias and the National Ozone Standard, 370

Oxidation
Environmental Beneficiation of Machining Wastes—Part II: Measurement of the Effects of Moisture on the Spontaneous Heating of Machining Swarf, 477
Environmental Beneficiation of Machining Wastes—Part III: Effects of Metal Working Fluids on the Spontaneous Heating of Machining Swarf, 588
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Ozone
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316
Overshoot Bias and the National Ozone Standard, 370
Ozone Decay Rates in Residences, 1238
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347
Enhanced VOC Absorption Using the Ozone/Hydrogen Peroxide Advanced Oxidation Process, 1315
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Ozone Formation
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Ozone, Boundary Layer
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734
Ozone Decay Rates in Residences, 1238

Ozone, Stratospheric
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734

Ozone, Tropospheric
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in South Coast Air Quality Management District, 28
A Statistical Model for FEV_1 Response to Arbitrary Dynamic Ozone Conditions, 289
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Paint Booth Filters
Comparative Study of Spray Booth Filter System Efficiency, 339

Painting
Comparative Study of Spray Booth Filter System Efficiency, 339

Particle Size
Comparative Study of Spray Booth Filter System Efficiency, 339
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Particle Sulfate
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Particulates
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Particulate Matter
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108
Objectives and Design of Central California's 1995 Integrated Monitoring Study of the California Regional $PM_{10}/PM_{2.5}$ Air Quality Study, PM-199

Particulate Nitrate
Nitrate Artifacts during $PM_{2.5}$ Sampling in the South Coast Air Basin of California, PM-142

Particulate Numbers
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Particulate Mass Health Effects
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133

Passive Samplers
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76

Perchloroethylene
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter Dry-Cleaner Variability, 213

Performance Evaluation
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Permeability
Multiple Radon Entry Modeling in a House with a Cellar, 682

Peroxyacetyl Nitrate
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177

Photocatalytic
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Photochemical Pollutants
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177
Ozone Decay Rates in Residences, 1238

Photochemical Smog
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Plant Response
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

$PM_{2.5}$
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Characterization of Particulate Matter in California, PM-45
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57
PM Emissions Emanating from Limited-Access Highways, PM-85
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operations, PM-95
Development of a $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin, PM-125
Techniques for High-Quality Ambient Coarse Particulate Mass Measurements, PM-133
Nitrate Artifacts during $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin of California, PM-142
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192
Contribution of Nitrate and Carbonaceous Species to $PM_{2.5}$ Observed in Canadian Cities, 193
The Magnitude of Bias in the Measurement of $PM_{2.5}$ Arising from Volatilization of Particulate Nitrate from Teflon Filters, 725
Maximizing Data Quality in the Gravimetric Analysis of Personal Exposure Sample Filters, 1039
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential
Implications of the Revised Particulate Matter Standard, 1060

Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212
Assessment of Human Exposure to Ambient Particulate Matter, 1280
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1415

PM_{10}
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Characterization of Particulate Matter in California, PM-45
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57
PM Emissions Emanating from Limited-Access Highways, PM-85
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164
Cleaning of Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystate Chemical Scrubber, 169
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192
Contribution of Nitrate and Carbonaceous Species to $PM_{2.5}$ Observed in Canadian Cities, 193
Comparative Study of Spray Booth Filter System Efficiency, 339
Middle- and Neighborhood-Scale Variation of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Maximizing Data Quality in the Gravimetric Analysis of Personal Exposure Sample Filters, 1039
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060
Particle Air Pollution in Mexico City: A Collaborative Research Project, 1221
Effects of Equilibration Temperature on PM_{10} Concentration from the TEOM Method in the Lower Fraser Valley, 1250
Assessment of Human Exposure to Ambient Particulate Matter, 1280

PM NAAQS
PM Fine Standards and Implied Modeling/Analysis Needs, PM-116

Plasma Systems
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225
Analysis of Material Recovery in Plasma ARC Melting of Solid Wastes: A Computational Study, 279

Plastic
Development of Emission Factors for Polypropylene Processing, 49

Plumes
Tracking Regional Background in a Haze Attribution Experiment, 599
The Plume Volume Molar Ratio Method for Determining NO_2/NO_x Ratios in Modeling—Part I: Methodology, 1332

Pneumonia
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Policy Decision-Making
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192

Pollutant Concentration
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201
Effects of Equilibration Temperature on PM_{10} Concentration from the TEOM Method in the Lower Fraser Valley, 1250
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Pollutant Transport
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Pollution Control Equipment
Cleaning of Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Pollution Prevention
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastic, 1110

Polyfunctional Plant Design
Polyfunctional Plants for Industrial Waste Disposal—Part I: Process and Equipment Design, 1355

Polypropylene
Development of Emission Factors for Polypropylene Processing, 49

Power Plants
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562
Tracking Regional Background in a Haze Attribution Experiment, 599
Stabilization of Heavy Metals Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Pressing
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Primary
Development of a $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin, PM-125

Processing
Development of Emission Factors for Polypropylene Processing, 49

Public Health
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454
Bioaerosol Concentration at an Outdoor Composting Center, 554
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Pulmonary Function
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Pyrotechnics
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156

Quality Assurance
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Radioactive Waste Tanks
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

Reactivities
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57

Receptor Models
Seasonal Transport of Fine Particles to the Grand Canyon, 268
Phantom Spatial Factors: An Example, 345

Recycling
Environmental Beneficiation of Machining Wastes —Part I: Material Characterization of Machining Swarf, 207
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Regional Modeling
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Regulations
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562

Regulatory Modeling
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Remediation
Radio Frequency Heating for Soil Remediation, 136
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Remote Sensing
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
Estimating Maximum Concentrations for Open Path Monitoring Along a Fixed Beam Path, 424
Localizing Gaseous Fugitive Emissions Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374
Development of a High-Speed Ultraviolet Spectrometer for Remote Sensing of Mobile Source Nitric Oxide Emissions, 1463

Renovation
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Research and Development
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
A High Performance Biofilter for VOC Emission Control, 185
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Respiratory Health
A Statistical Model for FEV_1 Response to Arbitrary Dynamic Ozone Conditions, 289
Bioaerosol Concentration at an Outdoor Composting Center, 554

Respiratory-Related Emergency
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Restaurant
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operations, PM-95

Roadways
PM Emissions Emanating from Limited-Access Highways, PM-85
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463

Rounding
Overshoot Bias and the National Ozone Standard, 370

Rule
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operations, PM-95

Rural Sites
Tracking Regional Background in a Haze Attribution Experiment, 599

Samplers, Passive
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Sampling
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69
Quantitation Limits for Reference Methods 23, 26, and 29, 399
Bioaerosol Concentration at an Outdoor Composting Center, 554
Maximizing Data Quality in the Gravimetric Analysis of Personal Exposure Sample Filters, 1039

Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

San Joaquin Valley
Objectives and Design of Central California's 1995 Integrated Monitoring Study of the California Regional PM_{10}/$PM_{2.5}$ Air Quality Study, PM-199

SCAB
Development of a $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin, PM-125

Scrubbers
Cleaning of Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169
Enhanced VOC Absorption Using the Ozone/Hydrogen Peroxide Advanced Oxidation Process, 1315

Seasonal Effects
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76

Secondary Standard
Development of a $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin, PM-125
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669

Size Selective Inlet
Characterization of Particulate Matter in California, PM-45

Smog Chamber
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57

SO_2 Removal
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Soil
Radio Frequency Heating for Soil Remediation, 136
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412

Soil Gas
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544

Solid Waste
Environmental Beneficiation of Machining Wastes —Part I: Material Characterization of Machining Swarf, 207
Estimating the Lower Heating Values of Hazardous and Solid Waste, 471
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Solidification
A Flow-Through Leaching Model for Monolithic Chemically Stabilized/Solidified Hazardous Waste, 569

Solvent Extraction
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544

Soot
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444

Sorbent Injection
Modeling Mercury Removal by Sorbent Injection, 694
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116

Sorbent Utilization
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Source Attribution
Phantom Spatial Factors: An Example, 345

Source Apportionment
Middle- and Neighborhood-Scale Variation of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Determination of Source Contributions to Ambient Volatile Organic Compound Concentrations in Berlin, 1394

Source Profiles
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3
Middle- and Neighborhood-Scale Variation of PM_{10} Source Contributions in Las Vegas, Nevada, 641

South Coast Air Basin
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28
Tracking Regional Background in a Haze Attribution Experiment, 599

Spatial Variation
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Characterization of Particulate Matter in California, PM-45
Middle- and Neighborhood-Scale Variation of PM_{10} Source Contributions in Las Vegas, Nevada, 641

Spatiotemporal Variation
Nitrate Artifacts during $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin of California, PM-142

Spontaneous Heating
Environmental Beneficiation of Machining Wastes— Part II: Measurement of the Effects of Moisture on the Spontaneous Heating of Machining Swarf, 477
Environmental Beneficiation of Machining Wastes —Part III: Effects of Metal Working Fluids on the Spontaneous Heating of Machining Swarf, 588

Sulfate
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69

Stabilization/Solidification
A Flow-Through Leaching Model for Monolithic Chemically Stabilized/Solidified Hazardous Waste, 569

Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Standardization
A Review of 20 Years of Standardization of Odor Concentration Measurement by Dynamic Olfactometry in Europe, 705

State Implementation Plans (SIPs)
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192

Statistical Analysis
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182

Stratospheric Ozone Depletion
Nonthermal Plasma Chemical Processing of Bromomethane, 1442

Stringency
Overshoot Bias and the National Ozone Standard, 370

Subindex
Formation of Air Pollution Index, 88

Sulfate
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655

Sulfur Dioxide
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1415

Swine Buildings
Development of the Relationship between Odor Intensity and Threshold Dilution Ratio for Swine Units, 1082

Tailpipe Emissions
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498

Tapered Element Oscillating Microbalance (TEOM)
Characterization of Particulate Matter in California, PM-45

Technology Development
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068
Stabilization of Heavy Metals Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Temperature Differences
Multiple Radon Entry Modeling in a House with a Cellar, 682

Temporal Variations
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Characterization of Particulate Matter in California, PM-45

Testing
Comparative Study of Spray Booth Filter System Efficiency, 339
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027

Thailand
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100

Thermal Treatment
Radio Frequency Heating for Soil Remediation, 136
Metal Emissions from Joule-Heated Vitrification Systems, 219

Thermodynamic Equilibrium Modeling
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1425

Thermophilic
Thermophilic Toluene Biofiltration, 350

Threshold Dilution Ratio
Development of the Relationship between Odor Intensity and Threshold Dilution Ratio for Swine Units, 1082

Toluene
Thermophilic Toluene Biofiltration, 350
Treatment of Toluene in Air Stream by a Biotrickling Filter Packed with Slags, 386

Toxic Air Pollutants
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
The Catalytic Purification of CO-Rich Air, 308
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116
National Estimates of Outdoor Air Toxics Concentrations, 1138
An Empirical Model to Predict Styrene Emissions from Fiber-Reinforced Plastics Fabrication Processes, 1168
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304
Enhanced VOC Absorption Using the Ozone/Hydrogen Peroxide Advanced Oxidation Process, 1315

Toxic Gases
Estimating Maximum Concentrations for Open Path Monitoring Along a Fixed Beam Path, 424
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Toxic Metals
Metal Emissions from Joule-Heated Vitrification Systems, 219
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short Term Measurement Study in Florida, 520
The Effects of Chloride Additives on Adsorption of Heavy Metals during Incineration, 1116
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Toxic Wastes
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Toxics
National Estimates of Outdoor Air Toxics Concentrations, 1138

An Empirical Model to Predict Styrene Emissions from Fiber-Reinforced Plastics Fabrication Processes, 1168

Tracer Techniques
Tracking Regional Background in a Haze Attribution Experiment, 599

Tracers
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146

Traffic
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

Transient Conditions
Transient Performance of Biofilters Treating Mixtures of Hydrophilic and Hydrophobic Volatile Organic Compounds, 1434

Trend Analysis
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35
Characteristics of Urban Ground-Level Ozone in Korea, 1415

Treatment, Storage, and Disposal
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Treatment Technologies
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347
Nonthermal Plasma Chemical Processing of Bromomethane, 1442

Turbulent Transfer Model
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669

Uncertainties
Nitrate Artifacts during $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin of California, PM-142

Urban Air Pollution
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Urban Areas
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Urban Pollution Analysis
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177

U.S. Environmental Protection Agency
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027
Assessment of Human Exposure to Ambient Particulate Matter, 1280

Utilities
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562

Vapor Extraction
Radio Frequency Heating for Soil Remediation, 136
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068

Vapor Recovery
Radio Frequency Heating for Soil Remediation, 136

Vapor Sampling
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

Vapors
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

Variability
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter Dry-Cleaner Variability, 213

Ventilation
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156

Virtual Impactor
Techniques for High-Quality Ambient Coarse Particle Mass Measurements, PM-133

Visibility
Use of the Deciview Haze Index as an Indicator for Regional Haze, 1230

Vitrification
Metal Emissions from Joule-Heated Vitrification Systems, 219

Volatile Organic Compounds (VOCs)
Development of Emission Factors for Polypropylene Processing, 49
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64
Characterization of Curing Emissions from Conversion Varnishes, 70
Radio Frequency Heating for Soil Remediation, 136
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175
A High Performance Biofilter for VOC Emission Control, 185
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299
Selection and Substantiation of Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastic, 1110
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168
Effects of Equilibration Temperature on PM_{10} Concentration from the TEOM Method in the Lower Fraser Valley, 1250
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368
Enhanced VOC Absorption Using the Ozone/Hydrogen Peroxide Advanced Oxidation Process, 1315
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

Determination of Source Contributions to Ambient Volatile Organic Compound Concentrations in Berlin, 1394

VOC Control
Treatment of Toluene in an Air Stream by a Biotrickling Filter Packed with Slags, 386
Treatment of Ethylether in Air Stream by a Biotrickling Filter Packed with Slags, 533

Waste Disposal
Bioaerosol Concentration at an Outdoor Composting Center, 554
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Waste Gas Cleaning
Cost-Effectiveness Analysis of Waste Gas Treatment Plants for the Glass Industry, 1456

Waste Management
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17
Analysis of Material Recovery in Plasma ARC Melting of Solid Wastes: A Computational Study, 279

Waste Reduction
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17

Waste Stream
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096

Waste Treatment
Metal Emissions from Joule-Heated Vitrification Systems, 219
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347
Polyfunctional Plants for Industrial Waste Disposal—Part I: Process and Equipment Design, 1355

Waste, Cement-Based
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Weighing
PM Fine Standards and Implied Modeling/Analysis Needs, PM-116
Maximizing Data Quality in the Gravimetric Analysis of Personal Exposure Sample Filters, 1039

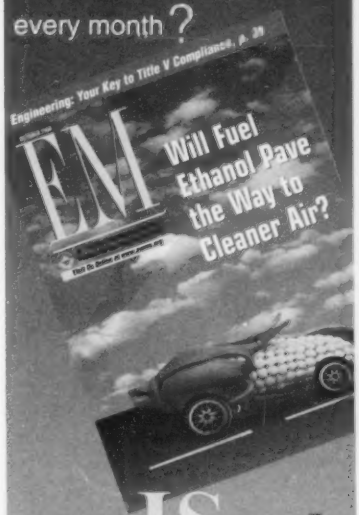
Wet Corrosion
Environmental Beneficiation of Machining Wastes—Part II: Measurement of the Effects of Moisture on the Spontaneous Heating of Machining Swarf, 477

Wind Conditions
Bioaerosol Concentration at an Outdoor Composting Center, 554

Wind Effects
Bioaerosol Concentration at an Outdoor Composting Center, 554

Wood Burning
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25

Q: Why do Thousands of people read EM every month?



A: It IS for the articles!

"Sony Semiconductor has been working hard to develop a strong relationship between Saftey, Quality, and Environmental departments on our site. The articles *'Right-Sizing Organizations for Quality'* in ***EM*** have given us a lot of good ideas on how to continue to build on these efforts."

Bob Holub
Environmental Manager
Sony Semiconductor

Your time is valuable. You need information that addresses issues you deal with daily as an environmental professional. Look to ***EM*** each month for insightful articles written by the profession's top experts!

For the convenience of *EM* in your mailbox, call today to subscribe: 1-800-270-3444 or +412-232-3444.

Connecting the World's Leading Environmental Professionals

www.awma.org

Author Index

Adams, C.D.
Enhanced VOC Absorption Using the Ozone/Hydrogen Peroxide Advanced Oxidation Process, 1315

Adams, K.
Development of Emission Factors for Polypropylene Processing, 49

Allen, D.G.
Transient Performance of Biofilters Treating Mixtures of Hydrophilic and Hydrophobic Volatile Organic Compounds, 1434

Allen, G.
Techniques for High-Quality Ambient Coarse Particulate Mass Measurements, PM-133

Al Maghraby, A.
Source Profiles of Nonmethane Organic Compounds in the Atmosphere of Cairo, Egypt, 814

Alonso, L.
Determination of Volatile Organic Compounds in the Atmosphere Using Two Complementary Analysis Techniques, 916

Alvarez, F.R.
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734

Anderson, K.R.
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Ando, A.W.
Estimating Full IM240 Emissions from Partial Test Results: Evidence from Arizona, 1153

Aneja, V.
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177

Anex, R.
A Maximum Entropy Approach to Estimating Emissions, 943

Ansari, A.S.
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1415

Apel, W.A.
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068

Archuleta, J.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Arriaga, J.L.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Ashbaugh, L.L.
Source Apportionment of Soil Samples by the Combination of Two Neural Networks Based on Computer-Controlled Scanning Electron Microscopy, 773

Atkinson, M.
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76

Axelrad, D.A.
National Estimates of Outdoor Air Toxics Concentrations, 1138

Bahner, M.A.
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastics, 1110
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168

Bai, M.
A Study on the Treatment of CO_2, SO_2, NO_x, and Fly Ash by Pulse Activation, 854

Bai, X.
A Study on the Treatment of CO_2, SO_2, NO_x, and Fly Ash by Pulse Activation, 854

Baker, J.
Influence of Baltimore's Urban Atmosphere on Organic Contaminants over the Northern Chesapeake Bay, 959

Bankston, J.
Development of Emission Factors for Polypropylene Processing, 49

Barlow, A.
Development of Emission Factors for Polypropylene Processing, 49

Barrett, R.
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Barrett, W.M., Jr.
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027

Baskir, J.N.
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256

Baumgardner, R.E., Jr.
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Behler, J.C.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Belian, T.C.
Real-World Vehicle Emissions: A Summary of the Eighth Coordinating Research Council On-Road Vehicle Emissions Workshop, 242

Bergin, M.
Speciation of Organic By-Products from the Thermal Decomposition of Alternative Automotive Fuels, 39

Betterton, E.A.
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Bian, X.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Bickford, D.F.
Metal Emissions from Joule-Heated Vitrification Systems, 219

Bishop, G.A.
Development of a High-Speed Ultraviolet Spectrometer for Remote Sensing of Mobile Source Nitric Oxide Emissions, 1463

Bishop, P.L.
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Blackburn, J.W.
Electrodialysis Applications for Pollution Prevention in the Chemical Processing Industry, 934

Bonvalot, Y.
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35

Bossert, J.E.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Bowser, J.J.
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Brand, K.P.
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Braverman, T.N.
PM Fine Standards and Implied Modeling/Analysis Needs, PM-116

Bromberg, L.
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225

Brook, J.R.
Contribution of Nitrate and Carbonaceous Species to $PM_{2.5}$ Observed in Canadian Cities, 193
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35

Brown, T.D.
Overview of the 1999 Critical Review—Mercury Measurement and Its Control: What We Know, Have Learned, and Need to Further Investigate, 628

Brzezinski, R.
A High Performance Biofilter for VOC Emission Control, 185

Bundy, D.S.
Using Olfactometry to Measure Intensity and Threshold Dilution Ratio for Evaluating Swine Odor, 847
Development of the Relationship between Odor Intensity and Threshold Dilution Ratio for Swine Units, 1082

Byers, L.F.
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454

Cadle, S.H.
Real-World Vehicle Emissions: A Summary of the Eighth Coordinating Research Council On-Road Vehicle Emissions Workshop, 242
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Cahill, T.A.
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156

Campos, E.
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Caputo, A.C.
Polyfunctional Plants for Industrial Waste Disposal—Part I: Process and Equipment Design; Part II: Economics and Model Evaluation, 1355 and 1362
Cost-Effectiveness Analysis of Waste Gas Treatment Plants for the Glass Industry, 1456

Cardelino, C.A.
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299

Cárdenas-González, B.
Characterization of Compost Biofiltration Media, 784

Carey, T.R.
Modeling Mercury Removal by Sorbent Injection, 694

Carlson, L.E.
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Carvacho, O.
Source Apportionment of Soil Samples by the Combination of Two Neural Networks Based on Computer-Controlled Scanning Electron Microscopy, 773

Cascio, T.
Fuel Type as a Factor Influencing Compliance by Utilities under the Acid Rain Program, 562

Cass, G.
The Magnitude of Bias in the Measurement of $PM_{2.5}$ Arising from Volatilization of Particulate Nitrate from Teflon Filters, 725

Casuccio, G.S.
Source Apportionment of Soil Samples by the Combination of Two Neural Networks Based on Computer-Controlled Scanning Electron Microscopy, 773

Cates, W.
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641

Cernuschi, S.
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Chandler, A.J.
Quantitation Limits for Reference Methods 23, 26, and 29, 399

Chang, R.
Modeling Mercury Removal by Sorbent Injection, 694

Chang, T.Y.
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57

Chen, J.-C.
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
The Effects of Chloride Additives on Adsorption of Heavy Metal during Incineration, 1116

Chen, Y.
Using Olfactometry to Measure Intensity and Threshold Dilution Ratio for Evaluating Swine Odor, 847

Development of the Relationship between Odor Intensity and Threshold Dilution Ratio for Swine Units, 1082

Chen, Z.Q.
A Flow-Through Leaching Model for Monolithic Chemically Stabilized/Solidified Hazardous Waste, 569

Chestnut, L.
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100

Chico, T.
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57

Chou, M.-S.
Treatment of Toluene in an Air Stream by a Biotrickling Filter Packed with Slags, 386
Treatment of Ethylether in Air Stream by a Biotrickling Filter Packed with Slags, 533

Chow, J.C.
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Cicero-Herman, C.A.
Metal Emissions from Joule-Heated Vitrification Systems, 219

Claiborn, C.
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161

Clark, K.W.
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Clark, N.N.
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76

Clayton, C.A.
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastics, 1110
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168

Cobb, J.T.
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Cohen, J.P.
National Estimates of Outdoor Air Toxics Concentrations, 1138

Cohn, D.R.
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225

Colford, J.M.
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454

Conti, B.
A High Performance Biofilter for VOC Emission Control, 185

Cooper, C.D.
Estimating the Lower Heating Values of Hazardous and Solid Wastes, 471

Copeland, S.A.
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156

Coulter, R.L.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Countess, R.J.
Development of a $PM_{2.5}$ Emissions Inventory for the South Coast Air Basin, PM-125

Cox, L.S.
Comparative Study of Spray Booth Filter System Efficiency, 339

Craig, D.
Kinetics and Mechanism of the Reaction of Azide with Ozone in Aqueous Solution, 1347

Crittenden, J.
Removal and Destruction of Organic Contaminants in Water Using Adsorption, Steam Regeneration, and Photocatalytic Oxidation: A Pilot-Scale Study, 951

Dann, T.F.
Contribution of Nitrate and Carbonaceous Species to $PM_{2.5}$ Observed in Canadian Cities, 193
Observations and Interpretations from the Canadian Fine Particle Monitoring Program, PM-35

Darvin, C.H.
Comparative Study of Spray Booth Filter System Efficiency, 339

Day, M.
An Investigation of Odors and Volatile Organic Compounds Released during Composting, 804

Deaton, M.L.
Hazardous Air Pollution from Mobile Sources: A Comparison of Alternative Fuel and Reformulated Gasoline Vehicles, 576

Dellinger, B.
Speciation of Organic By-Products from the Thermal Decomposition of Alternative Automotive Fuels, 39

Deshusses, M.
Biofiltration of High Loads of Ethyl Acetate in the Presence of Toluene, 973

Diaz, L.
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

Di Lalla, S.
New Methodology for the Application of a TGF-FTIR to Study Low Temperature Treatment of Waste Oil, 925

Dimitriades, B.
Scientific Basis of an Improved EPA Policy on Control of Organic Emissions for Ambient Ozone Reduction, 831

Dippel, W.A.
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

Donahue, B.A.
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17

Donahue, M.
Preliminary Assessment of Electrokinetic Remediation of Soil and Sludge Contaminated with Mixed Waste, 823

Dolislager, L.J.
Characterization of Particulate Matter in California, PM-45

Doran, J.C.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Doskey, P.V.
Source Profiles of Nonmethane Organic Compounds in the Atmosphere of Cairo, Egypt, 814
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

DuBois, D.W.
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641

Dumyahn, T.
Ozone Decay Rates in Residences, 1238

Durana, N.
Determination of Volatile Organic Compounds in the Atmosphere Using Two Complementary Analysis Techniques, 916

Durbin, T.D.
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28

Dutcher, D.D.
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156

Eatough, D.J.
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69

Eatough, N.L.
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69

Edgar, R.
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161

Edgerton, S.A.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Egami, R.T.
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641

Elliot, S.M.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Ensor, K.B.
Empirical Evaluation of Ambient Ozone Interpolation Procedures to Support Exposure Models, 839

Ergas, S.J.
Characterization of Compost Biofiltration Media, 784

Evans, J.C.
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

Fairley, D.
Overshoot Bias and the National Ozone Standard, 370

Farber, R.J.
Tracking Regional Background in a Haze Attribution Experiment, 599
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57

Farouk, B.
Analysis of Material Recovery in Plasma ARC Melting of Solid Wastes: A Computational Study, 279

Fast, J.D.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Fenske, J.D.
Human Breath Emissions of VOCs, 594

Fetterly, F.A., III
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027

Fisher, L.R.
Multi-Market Impacts of Market-Based Recycling Initiatives, 1089

Fitzgerald, K.M.
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNet Data, 1987 through 1996, 1266

Folmsbee, M.
Bioaerosol Concentration at an Outdoor Composting Center, 554

Fortmann, R.
Characterization of Curing Emissions from Conversion Varnishes, 70

Frazier, C.A.
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641

Fu, W.-S.
A Two-Reservoir Model to Simulate the Air Discharged from a Pulse-Jet Cleaning System, 894

Fujita, E.M.
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498

Fukui, Y.
Source Profiles of Nonmethane Organic Compounds in the Atmosphere of Cairo, Egypt, 814

Futamura, S.
Nonthermal Plasma Chemical Processing of Bromomethane, 1442

Gaffney, J.S.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Gallagher, G.L.
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Gamas, E.D.
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

Garbe-Shönberg, D.
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Garcia, J.A.
Determination of Volatile Organic Compounds in the Atmosphere Using Two Complementary Analysis Techniques, 916

Garrett, M.H.
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76

Georgoulis, L.
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Ger, J.-S.
A Two-Reservoir Model to Simulate the Air Discharged from a Pulse-Jet Cleaning System, 894

Gertler, A.W.
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

Ghezzi, U.
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Ghose, M.K.
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Giese-Bogdan, S.
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114

Gillies, J. A.
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641

Giugliano, M.
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Glatzmaier, G.C.
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Goldsmith, S.
Typical Household Vacuum Cleaners: The Collection Efficiency and Emissions Characteristics for Fine Particles, 200

Gong, H., Jr.
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Gorse, R.A., Jr.
Real-World Vehicle Emissions: A Summary of the Eighth Coordinating Research Council On-Road Vehicle Emissions Workshop, 242

Grant, L.
Assessment of Human Exposure to Ambient Particulate Matter, 1280

Grant, R.
A Maximum Entropy Approach to Estimating Emissions, 943

Green, M.C.
Tracking Regional Background in a Haze Attribution Experiment, 599
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Attribution of Particulate Sulfur in the Grand Canyon to Specific Point Sources Using Tracer-Aerosol Gradient Interpretive Technique (TAGIT), 906

Grego, J.
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544

Grosjean, D.
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177

Grosso, M.
Experimental Evaluation of Waste Tires Utilization in Cement Kilns, 1405

Guardani, M.L.G.
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316

Guardani, R.
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316

Guerreiro, P.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Guo, Z.
Characterization of Curing Emissions from Conversion Varnishes, 70

Guzman, F.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Hackney, R.
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16

Hadidi, K.
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225

Hadjiiski, L.
Source Apportionment of Soil Samples by the Combination of Two Neural Networks Based on Computer-Controlled Scanning Electron Microscopy, 773

Haller, L.
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161

Hand, D.
Removal and Destruction of Organic Contaminants in Water Using Adsorption, Steam Regeneration, and Photocatalytic Oxidation: A Pilot-Scale Study, 951

Hanninen, O.
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Hanrahan, P.L.
The Plume Volume Molar Ratio Method for Determining NO_2/NO_x Ratios in Modeling—Part I: Methodology; Part II: Evaluation Studies, 1324 and 1332

Harden, J.M.
Metal Emissions from Joule-Heated Vitrification Systems, 219

Harley, R.A.
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125

Hargis, R.A.
Overview of the 1999 Critical Review—Mercury Measurement and Its Control: What We Know, Have Learned, and Need to Further Investigate, 628

Harrington, W.
Estimating Full IM240 Emissions from Partial Test Results: Evidence from Arizona, 1153

Harssema, H.
A Review of 20 Years of Standardization of Odor Concentration Measurement by Dynamic Olfactometry in Europe, 705

Hartsell, B.E.
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177

Hashmonay, R.A.
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424
Innovative Approach for Estimating Fugitive Gaseous Fluxes Using Computed Tomography and Remote Optical Sensing Techniques, 966
Localizing Gaseous Fugitive Emission Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Hasselblad, V.
Assessment of Human Exposure to Ambient Particulate Matter, 1280

Hayes, S.R.
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192

Heeres, P.
A Review of 20 Years of Standardization of Odor Concentration Measurement by Dynamic Olfactometry in Europe, 705

Heitz, M.
A High Performance Biofilter for VOC Emission Control, 185

Henry, R.C.
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1449

Herbarth, O.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Hering, S.
The Magnitude of Bias in the Measurement of $PM_{2.5}$ Arising from Volatilization of Particulate Nitrate from Teflon Filters, 725

Hess, M.J.
Environmental Beneficiation of Machining Wastes—Part I: Material Characterization of Machining Swarf, 207
Environmental Beneficiation of Machining Wastes—Part II: Measurement of the Effects of Moisture on the Spontaneous Heating of Machining Swarf, 477
Environmental Beneficiation of Machining Wastes—Part III: Effects of Metal Working Fluids on the Spontaneous Heating of Machining Swarf, 588

Hesson, J.M.
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125

Hoff, S.J.
Using Olfactometry to Measure Intensity and Threshold Dilution Ratio for Evaluating Swine Odor, 847
Development of the Relationship between Odor Intensity and Threshold Dilution Ratio for Swine Units, 1082

Hogsett, W.E.
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669

Holdren, M.W.
Development of Emission Factors for Polypropylene Processing, 49

Hooper, B.M.
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76

Hooper, M.A.
Nitrogen Dioxide in Australian Homes: Levels and Sources, 76

Hopke, P.K.
Source Apportionment of Soil Samples by the Combination of Two Neural Networks Based on Computer-Controlled Scanning Electron Microscopy, 773

Hopkins, L.P.
Empirical Evaluation of Ambient Ozone Interpolation Procedures to Support Exposure Models, 839

Horner, R.
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454

Howard, E.M.
Characterization of Curing Emissions from Conversion Varnishes, 70

Huang, Y.H.
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57

Huang, Y.-S.
Treatment of Ethylether in Air Stream by a Biotrickling Filter Packed with Slags, 533

Huckaby, J.L.
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

Hubbard, A.
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454

Hubbe, J.M
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Huebner, R.S.
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412

Hunsanger, E.C.
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Hwang, Y.
An Estimation of Construction and Demolition Debris in Seoul, Korea: Waste Amount, Type and Estimating Model, 980

Ilardia, J.
Determination of Volatile Organic Compounds in the Atmosphere Using Two Complementary Analysis Techniques, 916

Ilabaca, M.
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, 154

Isil, S.S.
Measurements of Rural Sulfur Dioxide and Particle Sulfate: Analysis of CASTNET Data, 1987 through 1996, 1266

Jain, R.K.
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17

Jang, J.-H.
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Jantunen, M.J.
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Jarrett, R.P.
Field Measurements of Particulate Matter Emissions, Carbon Monoxide, and Exhaust Opacity from Heavy-Duty Diesel Vehicles, PM-76

Jensen, L.
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

Jiménez, J.L.
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463

Jo, W.-K.
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Johnson, C.T.
Biofiltration of High Loads of Ethyl Acetate in the Presence of Toluene, 973

Johnson, M.A.
Radio Frequency Heating for Soil Remediation, 136

Karamchandani, P.
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175

Kasevich, R.S.
Radio Frequency Heating for Soil Remediation, 136

Kawatra, S.K.
Environmental Beneficiation of Machining Wastes—Part I: Material Characterization of Machining Swarf, 207
Environmental Beneficiation of Machining Wastes—Part II: Measurement of the Effects of Moisture on the Spontaneous Heating of Machining Swarf, 477
Environmental Beneficiation of Machining Wastes—Part III: Effects of Metal Working Fluids on the Spontaneous Heating of Machining Swarf, 588

Keener, T.C.
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Kelly, N.A.
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57

Kendall, G.R.
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125

Ketcham, M.
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544

Kim, B.
Estimating the Lower Heating Values of Hazardous and Solid Wastes, 471

Kim, B.M.
Nitrate Artifacts during $PM_{2.5}$ Sampling in the South Coast Air Basin of California, PM-142
Diagnostics for Determining Influential Species in the Chemical Mass Balance Receptor Model, 1449

Kim, D.-S.
Peroxyacetyl Nitrate in Atlanta, Georgia: Comparison and Analysis of Ambient Data for Suburban and Downtown Locations, 177

Kirchstetter, T.W.
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125

Knapp, K.T.
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Koenig, J.
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161

Kohl, S.D.
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641

Koistinen, K.J
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Kong, E.J.
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastics, 1110

Koplow, M.D.
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463

Kousa, A.
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Koutrakis, P.
Techniques for High-Quality Ambient Coarse Particulate Mass Measurements, PM-133

Kozinski, J.A.
New Methodology for the Application of a TGF-FTIR to Study Low Temperature Treatment of Waste Oil, 925

Krebs, K.A.
Characterization of Curing Emissions from Conversion Varnishes, 70

Krishnan, E.R.
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734

Kronmiller, K.G.
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64

Krzymien, M.
An Investigation of Odors and Volatile Organic Compounds Released during Composting, 804

Kuenzli, N.
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Kuhns, H.
Attribution of Particulate Sulfur in the Grand Canyon to Specific Point Sources Using Tracer-Aerosol Gradient Interpretive Technique (TAGIT), 906

Lahaye, J.
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Laixuthai, A
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100

Lamoree, D.P.
PM Emissions Emanating from Limited-Access Highways, PM-85

Langstaff, J.E.
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655

Langston, R.
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3

Lao, H.-C.
Characterization of Curing Emissions from Conversion Varnishes, 70

Larson, S.A.
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Larson, T.
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161

Lawless, P.A.
Maximizing Data Quality in the Gravimetric Analysis of Personal Exposure Sample Filters, 1039

Lawson, D.R.
Real-World Vehicle Emissions: A Summary of the Eighth Coordinating Research Council On-Road Vehicle Emissions Workshop, 242
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498

Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Lawson, R.B.
Enhanced VOC Absorption Using the Ozone/Hydrogen Peroxide Advanced Oxidation Process, 1315

Lee, B.D.
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068

Lee, E.H.
Role of Concentration and Time of Day in Developing Ozone Exposure Indices for a Secondary Standard, 669

Lee, J.T.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Lee, K.
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213
Ozone Decay Rates in Residences, 1238

Lehman, D.M.
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412

Lehrman, D.
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16

Leng, H.
A Study on the Treatment of CO_2, SO_2, NO_x, and Fly Ash by Pulse Activation, 854

Lenschow, P.
Determination of Source Contributions to Ambient Volatile Organic Compound Concentrations in Berlin, 1394

Leonardos, G.
Beyond Detectability, 582

Leroux, A.
A High Performance Biofilter for VOC Emission Control, 185

Leson, G.
Biofiltration of High Loads of Ethyl Acetate in the Presence of Toluene, 973

Lester, J.
Nitrate Artifacts during $PM_{2.5}$ Sampling in the South Coast Air Basin of California, PM-142

Levine, S.P.
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424

Lewis, C.W.
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299

Li, G.G.
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Li, J.
Case Studies on the Processes of Surface Ozone Pollution in Shanghai, 716

Ligocki, M.P.
National Estimates of Outdoor Air Toxics Concentrations, 1138

Limón, T.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Lindberg, S.E.
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520

Linn, W.S.
Day-to-Day Particulate Exposures and Health Changes in Los Angeles Area Residents with Severe Lung Disease, PM-108

Lioy, P.J.
Typical Household Vacuum Cleaners: The Collection Efficiency and Emissions Characteristics for Fine Particles, 200

Lipfert, F.
Statistical Considerations in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182

Littlejohn, D.
Vapor Pressure Measurement System for Heavy Crude Oils, 1103

Liu, J.
Removal and Destruction of Organic Contaminants in Water Using Adsorption, Steam Regeneration, and Photocatalytic Oxidation: A Pilot-Scale Study, 951

Lloyd, W.G.
The Catalytic Purification of CO-Rich Air, 308

Lopez-Salinas, E.
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

Lowenthal, D.H.
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16

Lucas, D.
Vapor Pressure Measurement System for Heavy Crude Oils, 1103

Lund, J.R.
A Maximum Entropy Approach to Estimating Emissions, 943

MacDonald, J.
Estimating the Lower Heating Values of Hazardous and Solid Wastes, 471

Machac, J.
Modeling Mercury Removal by Sorbent Injection, 694

Macias, E.S.
Tracking Regional Background in a Haze Attribution Experiment, 599

Mage, D.
Assessment of Human Exposure to Ambient Particulate Matter, 1280

Magliano, K.L.
Objectives and Design of Central California's 1995 Integrated Monitoring Study of the California Regional $PM_{10}/PM_{2.5}$ Air Quality Study, PM-199
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16

Magrini, K.A.
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Malone, E.L.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Marchesani, V.J.
Development of Emission Factors for Polypropylene Processing, 49

Marley, M.C.
Radio Frequency Heating for Soil Remediation, 136

Marley, N.A.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Marshall, J.R.
Designing Optimal Strategies to Attain the New U.S. Particulate Matter Standards: Some Initial Concepts, PM-192

Martins, M.H.R.B.
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316

Matschullat, J.
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

McCauley-Bell, P.R.
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096

McClenny, W.A.
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64

McConnell, V.
Estimating Full IM240 Emissions from Partial Test Results: Evidence from Arizona, 1153

McCrillis, R.C.
Characterization of Curing Emissions from Conversion Varnishes, 70

McDonnell, W.F.
A Statistical Model for FEV_1 Response to Arbitrary Dynamic Ozone Conditions, 289

McNair, L.A.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Matteau, Y.
Thermophilic Toluene Biofiltration, 350

Meagher, J.F.
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060

Meier, D.
Cleaning Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169

Meserole, F.B.
Modeling Mercury Removal by Sorbent Injection, 694

Meyer, E.L., Jr.
PM Fine Standards and Implied Modeling/Analysis Needs, PM-116

Meyer, J.
Development of Emission Factors for Polypropylene Processing, 49

Mignacca, D.
Effects of Equilibration Temperature on PM_{10} Concentration from the TEOM Method in the Lower Fraser Valley, 1250

Miller, A.R.
Removal of Low Concentrations of Carbon Tetrachloride in Compost-Based Biofilters Operated under Methanogenic Conditions, 1068

Mirabella, V.A.
Tracking Regional Background in a Haze Attribution Experiment, 599
Attribution of Particulate Sulfur in the Grand Canyon to Specific Point Sources Using Tracer-Aerosol Gradient Interpretive Technique (TAGIT), 906

Mohseni, M.
Transient Performance of Biofilters Treating Mixtures of Hydrophilic and Hydrophobic Volatile Organic Compounds, 1434

Molt, K.
Application of the Shifting Method as a Technique to Correct for the Background in Quantitative Analysis by Open-Path FTIR, 114

Montagne, X.
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Motallebi, N.
Wintertime $PM_{2.5}$ and PM_{10} Source Apportionment at Sacramento, California, PM-25
Characterization of Particulate Matter in California, PM-45

Mueller, S.F.
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655

Mulawa, P.
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Nam, C.-W.
Characteristics of Urban Ground-Level Ozone in Korea, 1425

Nance, B.I.
Modeling Smog Chamber Measurements of Vehicle Exhaust Reactivities, 57

Nascimento, C.A.O.
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316

Navazo, M.
Determination of Volatile Organic Compounds in the Atmosphere Using Two Complementary Analysis Techniques, 916

Neff, W.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Nelson, D.D.
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463

Nelson, K.
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Neufeld, R.D.
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Norbeck, J.M.
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28

Norris, G.
Airborne Particulate Matter Size Distributions in an Arid Urban Area, 161

Norris, W.B.
Estimates of Sulfate Deposition in the Middle Eastern United States: 1975, 1990, and 2010, 655

Nuñez, C.M.
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastics, 1110
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168

O'Connor, C.M.
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

O'Dowd, W.J.
Overview of the 1999 Critical Review—Mercury Measurement and Its Control: What We Know, Have Learned, and Need to Further Investigate, 628

Offenberg, J.H.
Influence of Baltimore's Urban Atmosphere on Organic Contaminants over the Northern Chesapeake Bay, 959

Oglesby, L.
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Oh, J.A.
Techniques for High-Quality Ambient Coarse Particulate Mass Measurements, PM-133

Olaeta, I.
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Ontiveros, L.
Exhaust Emissions from Gasoline-and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

Ortiz, E.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Orton, T.L.
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Ostro, B.
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100

Overcamp, T.J.
Metal Emissions from Joule-Heated Vitrification Systems, 219

Özkaynak, H.
Ozone Decay Rates in Residences, 1238

Pandis, S.N.
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1415

Pang, Y.
Determination of $PM_{2.5}$ Sulfate and Nitrate with a PC-BOSS Designed for Routine Sampling for Semi-Volatile Particulate Matter, PM-69

Park, D.Y.
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424

Park, J.H.
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Parkhurst, W. J.
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060

Partridge, G.P.
Modeling the Reduction of Vapor Phase Emissions from Surface Soils Due to Soil Matrix Effects: Porosity/Tortuosity Concepts, 412

Paulson, S.E.
Human Breath Emissions of VOCs, 594

Pelagagge, P.M.
Polyfunctional Plants for Industrial Waste Disposal—Part I: Process and Equipment Design; Part II: Economics and Model Evaluation, 1355 and 1362
Cost-Effectiveness Analysis of Waste Gas Treatment Plants for the Glass Industry, 1456

Perrin, D.L.
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734

Perry, K.D.
Effects of Indoor Pyrotechnic Displays on the Air Quality in the Houston Astrodome, 156
Effects of Outdoor Pyrotechnic Displays on the Regional Air Quality of Western Washington State, 146

Perryman, P.
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operations, PM-95

Petty, R.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Pierce, T.E.
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299

Pierson, W.R.
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498

Pitchford, M.
Tracking Regional Background in a Haze Attribution Experiment, 599
Attribution of Particulate Sulfur in the Grand Canyon to Specific Point Sources Using Tracer-Aerosol Gradient Interpretive Technique (TAGIT), 906

Poon, C.S.
A Flow-Through Leaching Model for Monolithic Chemically Stabilized/Solidified Hazardous Waste, 569

Popp, P.J.
Development of a High-Speed Ultraviolet Spectrometer for Remote Sensing of Mobile Source Nitric Oxide Emissions, 1463

Price, J.L.
Airborne Emissions of Mercury from Municipal Landfill Operations: A Short-Term Measurement Study in Florida, 520

Price, S.L.
Radio Frequency Heating for Soil Remediation, 136

Pritts, J.W.
Stabilization of Heavy Metal Containing Hazardous Wastes with Byproducts from Advanced Clean Coal Technology Systems, 1190

Puliafito, C.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Puliafito, E.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Puliafito, J.L.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Quéro, J.L.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Quinlan, C.
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544

Quinn, G.
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operations, PM-95

Ragazzi, R.A.
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Rahman, M.
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734

Ramsay, B.
Thermophilic Toluene Biofiltration, 350

Ramsey, G.H.
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastics, 1110
An Empirical Model to Predict Styrene from Fiber-Reinforced Plastics Fabrication Processes, 1168

Rasmussen, R.A.
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299

Ray, C.
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17

Reddy, K.R.
Preliminary Assessment of Electrokinetic Remediation of Soil and Sludge Contaminated with Mixed Waste, 823

Rehwagen, M.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Reinhart, D.R.
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096

Richards, L.W.
Use of the Deciview Haze Index as an Indicator for Regional Haze, 1230

Ricci, P.
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454

Richardson, C.F.
Modeling Mercury Removal by Sorbent Injection, 694

Richter, M.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Rifai, H.S.
Empirical Evaluation of Ambient Ozone Interpolation Procedures to Support Exposure Models, 839

Rigo, H.G.
Quantitation Limits for Reference Methods 23, 26, and 29, 399

Rochelle, G.T.
Nitrogen Dioxide Absorption and Sulfide Oxidation in Aqueous Sulfide, 332

Rodes, C.E.
Maximizing Data Quality in the Gravimetric Analysis of Personal Exposure Sample Filters, 1039

Rodriguez, R.
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

Rogers, C.F.
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641

Romano, J.
Study of Atmospheric Ozone Formation by Means of a Neural Network-Based Model, 316

Romieu, I.
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Rosenbaum, A.S.
National Estimates of Outdoor Air Toxics Concentrations, 1138

Roth, C.
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Roth, P.M.
A Qualitative Approach to Evaluating the Anticipated Reliability of a Photochemical Air Quality Simulation Model for a Selected Application, 1050

Rowe, D.R.
The Catalytic Purification of CO-Rich Air, 308

Roy, S.
Lysimeter Test of Coke Plant Effluent Disposal to Land in India, 1245

Rubey, W.A.
Speciation of Organic By-Products from the Thermal Decomposition of Alternative Automotive Fuels, 39

Ruiz, M.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Sagebiel, J.C.
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498
The Impact of California Phase 2 Reformulated Gasoline on Real-World Vehicle Emissions, 1339

Saichek, R.E.
Preliminary Assessment of Electrokinetic Remediation of Soil and Sludge Contaminated with Mixed Waste, 823

Samaras, Z.
An Integrated Modeling System for the Estimation of Motor Vehicle Emissions, 1010

Saricks, C.
Fuel Ethanol Produced from Midwest U.S. Corn: Help or Hindrance to the Vision of Kyoto? 756

Sasaoka, R.
Preliminary Assessment of Electrokinetic Remediation of Soil and Sludge Contaminated with Mixed Waste, 823

Scharnweber, T.
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Schifter, I.
Exhaust Emissions from Gasoline- and LPG-Powered Vehicles Operating at the Altitude of Mexico City, 1179

Schlaegle, S.
Source Apportionment of Soil Samples by the Combination of Two Neural Networks Based on Computer-Controlled Scanning Electron Microscopy, 773

Schlink, U.
Ozone-Monitoring in Mendoza, Argentina: Initial Results, 82

Schmidt, S.E.
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463

Schmidt, S.M.
Variation of the Relative Humidity of Air Released from Canisters after Ambient Sampling, 64

Schorran, D.E.
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498

Seigneur, C.
Simulation of Sulfate and Nitrate Chemistry in Power Plant Plumes, PM-175

Seo, S.
An Estimation of Construction and Demolition Debris in Seoul, Korea: Waste Amount, Type and Estimating Model, 980

Serrano, P.I.
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Sfeir, H.
An Evaluation of Municipal Solid Waste Composition Bias Sources, 1096

Sickles, J.E.
A Summary of Airborne Concentrations of Sulfur- and Nitrogen-Containing Pollutants in the Northeastern United States, 882

Smith, T.
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16

Shanbhag, S.
Speciation of Organic By-Products from the Thermal Decomposition of Alternative Automotive Fuels, 39

Shaul, G.M.
Fate of Terpene Compounds in Activated Sludge Wastewater Treatment Systems, 734

Shaw, K.
An Investigation of Odors and Volatile Organic Compounds Released during Composting, 804

Shaw, W.J.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Shen, C.H.
Nitrogen Dioxide Absorption and Sulfide Oxidation in Aqueous Sulfide, 332

Sherwell, J.
Characteristics of Ozone in the Baltimore–Washington Area as Established from One-Hour Average Concentrations, 794

Shoda, M.
Selection and Substantiation of an Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324

Siddiqui, K.
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Singer, B.C.
A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions, 125

Sioutas, C.
Techniques for High-Quality Ambient Coarse Particulate Mass Measurements, PM-133

Sklarew, D.S.
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

Smith, D.
Comparative Study of Spray Booth Filter System Efficiency, 339

Smith, D.N.
Overview of the 1999 Critical Review—Mercury Measurement and Its Control: What We Know, Have Learned, and Need to Further Investigate, 628

Smith, E.D.
Hazardous Waste Minimization through Life Cycle Cost Analysis at Federal Facilities, 17

Smith, M.R.
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28

Smith, M.V.
A Statistical Model for FEV_1 Response to Arbitrary Dynamic Ozone Conditions, 289

Snow, R.
Light-Duty Motor Vehicle Exhaust Particulate Matter Measurement in the Denver, Colorado, Area, PM-164

Solomon, P.A.
Objectives and Design of Central California's 1995 Integrated Monitoring Study of the California Regional $PM_{10}/PM_{2.5}$ Air Quality Study, PM-199

Song, X.-H.
Source Apportionment of Soil Samples by the Combination of Two Neural Networks Based on Computer-Controlled Scanning Electron Microscopy, 773

Sosa, G.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Spengler, J.D.
Ozone Decay Rates in Residences, 1238

Spear, R.
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424

Stedman, D.H.
Development of a High-Speed Ultraviolet Spectrometer for Remote Sensing of Mobile Source Nitric Oxide Emissions, 1463

Stein, A.W.
Continuous Sorbent Reactions in a High-Temperature Fabric Filter Following Convective Pass $Ca(OH)_2$ Injection for SO_2 Removal, 1292

Stessel, R.I.
Evaluation of Chemical Compatibility Testing of Geomembranes Using the Comprehensive Test System and EPA Method 9090, 1027

Stevens, R.K.
Biogenic Fraction of Ambient VOC: Comparison of Radiocarbon, Chromatographic, and Emissions Inventory Estimates for Atlanta, Georgia, 299

Strevett, K.A.
VOC Elimination in a Compost Biofilter Using a Previously Acclimated Bacterial Inoculum, 544
Bioaerosol Concentration at an Outdoor Composting Center, 554

Stubbs, K.
Effects of Equilibration Temperature on PM_{10} Concentrations from the TEOM Method in the Lower Fraser Valley, 1250

Su, J.-L.
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444

Sultan, M.
Source Profiles of Nonmethane Organic Compounds in the Atmosphere of Cairo, Egypt, 814

Suri, R.
Removal and Destruction of Organic Contaminants in Water Using Adsorption, Steam Regeneration, and Photocatalytic Oxidation: A Pilot-Scale Study, 951

Swamee, P.K.
Formation of Air Pollution Index, 88

Sweet, J.
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3

Switzenbaum, M.S.
Characterization of Compost Biofiltration Media, 784

Tager, I.
Methods for Assessing the Public Health Impact of Outflows from Combined Sewer Systems, 454

Taher, A.
Source Profiles of Nonmethane Organic Compounds in the Atmosphere of Cairo, Egypt, 814

Tanner, R.L.
Assessment of Nontailpipe Hydrocarbon Emissions from Motor Vehicles, 498
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060

Taylor, P.H.
Speciation of Organic By-Products from the Thermal Decomposition of Alternative Automotive Fuels, 39

Tellez-Rojo, M.
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Tenhola, V.
Fine Particle ($PM_{2.5}$) Measurement Methodology, Quality Assurance Procedures, and Pilot Results of the EXPOLIS Study, 1212

Thijsse, T.R.
Determination of Source Contributions to Ambient Volatile Organic Compound Concentrations in Berlin, 1394

Tisopulos, L.
Nitrate Artifacts during $PM_{2.5}$ Sampling in the South Coast Air Basin of California, PM-142

Truex, T.J.
Population Density, Particulate Emission Characterization, and Impact on the Particulate Inventory of Smoking Vehicles in the South Coast Air Quality Management District, 28

Turner, J.R.
PM Emissions Emanating from Limited-Access Highways, PM-85

Tyagi, A.
Formation of Air Pollution Index, 88

Valente, R.J.
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060

Vallarino, J.
Ozone Decay Rates in Residences, 1238

VanCuren, T.
Spatial Factors Influencing Winter Primary Particle Sampling and Interpretation, PM-3

van Harreveld, A.P.
A Review of 20 Years of Standardization of Odor Concentration Measurement by Dynamic Olfactometry in Europe, 705

van Oss, R.F.
Determination of Source Contributions to Ambient Volatile Organic Compound Concentrations in Berlin, 1394

Vasconcelos, L.A.
Seasonal Transport of Fine Particles to the Grand Canyon, 268
Tracking Regional Background in a Haze Attribution Experiment, 599
Attribution of Particulate Sulfur in the Grand Canyon to Specific Point Sources Using Tracer-Aerosol Gradient Interpretive Technique (TAGIT), 906

Vega, E.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Vichit-Vadakan, N.
The Impact of Particulate Matter on Daily Mortality in Bangkok, Thailand, PM-100

Viel, G.
A High Performance Biofilter for VOC Emission Control, 185

Villaire, J.
Association between Levels of Fine Particulate and Emergency Visits for Pneumonia and other Respiratory Illnesses among Children in Santiago, Chile, PM-154

Vitale, S.
Economic Study of the Tunable Electron Beam Plasma Reactor for Volatile Organic Compound Treatment, 225

Votlucka, P.
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operation, PM-95

Vukovich, F.M.
Characteristics of Ozone in the Baltimore–Washington Area as Established from One-Hour Average Concentrations, 794

Wai, O.
A Flow-Through Leaching Model for Monolithic Chemically Stabilized/Solidified Hazardous Waste, 569

Wainman, T.
Typical Household Vacuum Cleaners: The Collection Efficiency and Emissions Characteristics for Fine Particles, 200

Walther, A.
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Wang, F.
Multiple Radon Entry Modeling in a House with a Cellar, 682

Wang, I.T.
Development, Evaluation, and Application of a Primary Aerosol Model, PM-57

Wang, M.
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Wang, M.
Fuel Ethanol Produced from Midwest U.S. Corn: Help or Hindrance to the Vision of Kyoto? 756

Ward, I.C.
Multiple Radon Entry Modeling in a House with a Cellar, 682

Watson, J.G.
Long-Term Efficiencies of Dust Suppressants to Reduce PM_{10} Emissions from Unpaved Roads, 3
Middle- and Neighborhood-Scale Variations of PM_{10} Source Contributions in Las Vegas, Nevada, 641
Temporal Variations of $PM_{2.5}$, PM_{10}, and Gaseous Precursors during the 1995 Integrated Monitoring Study in Central California, PM-16
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Watt, A.S.
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Wayland, R.
Characteristics of Ozone in the Baltimore–Washington Area as Established from One-Hour Average Concentrations, 794

Weker, R.A.
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Wenger, A.K.
Analysis of Material Recovery in Plasma Arc Melting of Solid Wastes: A Computational Study, 279

Weatherford, F.P.
Historic $PM_{2.5}/PM_{10}$ Concentrations in the Southeastern United States—Potential Implications of the Revised Particulate Matter Standard, 1060

Wei, Y.-H.
National Estimates of Outdoor Air Toxics Concentrations, 1138

West, J.J.
Marginal $PM_{2.5}$: Nonlinear Aerosol Mass Response to Sulfate Reductions in the Eastern United States, 1415

Wey, M.-Y.
Influence of Operating Conditions on the Formation of Heavy Metal Compounds during Incineration, 444
The Effect of Chloride Additives on Adsorption of Heavy Metal during Incineration, 1116

White, W.H.
Phantom Spatial Factors: An Example, 345
Tracking Regional Background in a Haze Attribution Experiment, 599
Attribution of Particulate Sulfur in the Grand Canyon to Specific Point Sources Using Tracer-Aerosol Gradient Interpretive Technique (TAGIT), 906

Whiteman, C.D.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Whynot, J.
Control of Fine Particulate ($PM_{2.5}$) Emissions from Restaurant Operation, PM-95

Wiberg, D.
Radio Frequency Heating for Soil Remediation, 136

Wilmarth, S.R.
Representative Sampling of High-Level Radioactive Waste Tank Headspaces, 1075

Wilson, W.
Assessment of Human Exposure to Ambient Particulate Matter, 1280

Winebrake, J.J.
Hazardous Air Pollution from Mobile Sources: A Comparison of Alternative Fuel and Reformulated Gasoline Vehicles, 576

Wirth, V.
Epilithic Lichen—Atmospheric Deposition Monitors of Trace Elements and Organohalogens? 1201

Wittle, J.K.
Analysis of Material Recovery in Plasma Arc Melting of Solid Wastes: A Computational Study, 279

Woodruff, T.J.
National Estimates of Outdoor Air Toxics Concentrations, 1138

Wolfrum, E.J.
Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions, 1368

Wright, R.S.
Evaluation of Pollution Prevention Options to Reduce Styrene Emissions from Fiber-Reinforced Plastic Open Molding Processes, 256
Comparison of Analytical Techniques for Measuring Hydrocarbon Emissions from the Manufacture of Fiberglass-Reinforced Plastics, 1110

Wu, F.-L.
Treatment of Toluene in Air Stream by a Biotrickling Filter Packed with Slags, 386

Wu, G.
A High Performance Biofilter for VOC Emission Control, 185

Wu, M.
Fuel Ethanol Produced from Midwest U.S. Corn: Help or Hindrance to the Vision of Kyoto? 756

Wyzga, R.E.
Statistical Consideration in Determining the Health Significance of Constituents of Airborne Particulate Matter, PM-182

Xu, J.
Case Studies on the Processes of Surface Ozone Pollution in Shanghai, 716

Yamamoto, T.
Nonthermal Plasma Chemical Processing of Bromomethane, 1442

Yan, M.H.
The Effects of Chloride Additives on Adsorption of Heavy Metal during Incineration, 1116

Yanagisawa, Y.
Residual Perchloroethylene in Dry-Cleaned Acetate: The Effect of Pressing and Extent of Inter-Dry-Cleaner Variability, 213

Yang, C.-L.
Cleaning Flue Gas from Sewage Sludge Incinerators Using an Electrostatic Precipitator and Polystage Chemical Scrubber, 169

Yano, H.
Selection and Substantiation of an Organic Solvents Removal Apparatus at a Print Shop by Comparative Experiments Using the Activated Carbon Adsorption and Catalytic Oxidation Methods, 324

Yi, C.
A Study on the Treatment of CO_2, SO_2, NO_x, and Fly Ash by Pulse Activation, 854

Yost, M.G.
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424
Innovative Approach for Estimating Fugitive Gaseous Fluxes Using Computed Tomography and Remote Optical Sensing Techniques, 966
Localizing Gaseous Fugitive Emission Sources by Combining Real-Time Optical Remote Sensing and Wind Data, 1374

Zachariadis, T.
An Integrated Modeling System for the Estimation of Motor Vehicle Emissions, 1010

Zahniser, M.S.
Characterization of On-Road Vehicle NO Emissions by a TILDAS Remote Sensor, 463

Zaremba, L.
An Investigation of Odors and Volatile Organic Compounds Released during Composting, 804

Zeldin, M.
Nitrate Artifacts during $PM_{2.5}$ Sampling in the South Coast Air Basin of California, PM-142

Zervas, E.
The Influence of Gasoline Formulation on Specific Pollutant Emissions, 1304

Zhang, A.
Nonthermal Plasma Chemical Processing of Bromomethane, 1442

Zhang, J.
Typical Household Vacuum Cleaners: The Collection Efficiency and Emissions Characteristics for Fine Particles, 200

Zhang, Z.
A Study on the Treatment of CO_2, SO_2, NO_x, and Fly Ash by Pulse Activation, 854

Zhong, S.
Particulate Air Pollution in Mexico City: A Collaborative Research Project, 1221

Zhou, Y.
Estimating Maximum Concentrations for Open Path Monitoring along a Fixed Beam Path, 424

Zhu, H.
Temporal and Longitudinal Characteristics of Volatile Organic Compound Emissions from Aeration Units of Publicly Owned Treatment Works, 434

Zhu, Y.
Case Studies on the Processes of Surface Ozone Pollution in Shanghai, 716

New! Pictorial Atlas

RECOGNITION OF AIR POLLUTION INJURY TO VEGETATION 2ND EDITION

An essential resource in the diagnosis of plant injury caused by air pollution!

Nearly 30 years of advancements made by internationally-recognized experts have been incorporated into this new book since the widely-used first edition hit the shelves.

You'll use this resource for years to come to accurately diagnose complex pollutant injury, with features like:

- More than 150 full-color photographs to provide the best-available documentation of the symptoms of air pollution injury to vegetation;
- Vast coverage of pollutants, including ammonia, fluoride, nitric acid vapor, nitrogen oxides, ozone, peroxyacyl nitrates (PANs), sulfur dioxide, and more!
- Each chapter addresses pollutant sources, ambient exposure levels, interacting factors, mimicking symptoms, bioindicators, and actual symptomatology.

Available in both hard and soft covers at great prices!

A&WMA members: $46.75 softcover (order #OTHP-19S) $53.96 hardcover (order #OTHP-19H)
Non-members: $58.50 softcover (order #OTHP-19S) $67.50 hardcover (order #OTHP-19H)

Four convenient ways to order:

Visit the A&WMA BookZone at *online.awma.org/bookzone/* and click on the reference category; **Telephone** 1-800-275-5851 (USA/Canada)/+1-412-741-1288 (International); **Fax** to 412-741-0609; or **e-mail** awmorder@abdintl.com